

Serial No.: 10/754,152

REMARKS

Claims 1-20 are presently under consideration in the application. Claims 1 and 6 have been amended herein. Claims 21-23 have been withdrawn from consideration as a result of a previous restriction requirement. Favorable reconsideration of the application, as amended, is respectfully requested.

I. ALLOWABLE SUBJECT MATTER

Applicant acknowledges with appreciation the noted allowability of claims 8-13 and 16-20. These claims will be in condition for allowance upon being amended to independent form.

II. REJECTION OF CLAIMS 1-7 UNDER 35 USC §102(b)

Claims 1-7 stand rejected under 35 USC §102(b) based on *Bhatnagar*. Withdrawal of the rejection is respectfully requested for at least the following reasons.

Claim 1 recites a low noise solid-state thermostat that includes, inter alia, a microprocessor for comparing the output of the temperature sensor to a predefined setpoint temperature. Claim 6 defines a low noise solid-state thermostat that includes, among other things, a microprocessor configured to monitor operation of the thermostat and to detect a fault in the operation.

Claims 1 and 6 have both been amended to emphasize that the microprocessor recited therein is of a *commercially available* type.¹ This is significant in that the present invention relates to a low noise solid-state thermostat which provides reduced size and cost. The present invention does not rely on application specific integrated circuitry. Such application specific circuitry, as found in the cited art, drives up the cost and size of a device.

More specifically, *Bhatnagar* describes a multipoint digital temperature controller. However, the controller in *Bhatnagar* is part of an application specific integrated circuit

¹Support for such amendment is found, for example, in the present specification at page 6, line 23.

Serial No.: 10/754,152

(ASIC). *Bhatnagar* describes how in one embodiment "the entire control circuit is implemented as a custom application specific integrated circuit (ASIC)". (Col. 5, Ins. 1-33-34). In another embodiment, *Bhatnagar* describes how "the said ASIC excludes non-volatile memory, clock circuit and the power supply". (Col. 5, Ins. 40-41). In both embodiments, however, the integrated circuit 97 and central control unit 71 to which the Examiner refers are part of the application specific integrated circuit.

Bhatnagar does not teach or suggest that the integrated circuit 97 and/or central control unit may include a commercially available microprocessor as recited in amended claims 1 and 6. In fact, *Bhatnagar* teaches away from such a solid-state thermostat. For example, *Bhatnagar* teaches that the temperature controller utilizes an ASIC to provide reduced size and cost. (See, e.g., Abstract). The present invention, on the other hand, takes a completely opposite approach by using a commercially available microprocessor which can be miniaturized and mass produced at very low cost relative to an ASIC.

Thus, it will be appreciated that *Bhatnagar* neither teaches nor suggests the low noise solid-state thermostat of claims 1 and 6. Moreover, it will be appreciated that *Bhatnagar* neither teaches nor suggests the advantages associated with such a thermostat as claimed.

Remaining claims 2-5 and 7 depend from claim 1 or 6, and can be distinguished for at least the same reasons. Withdrawal of the rejection is respectfully requested.

III. REJECTION OF CLAIMS 14 AND 15 UNDER 35 USC §103(a)

Claims 14 and 15 stand rejected under 35 USC §103(a) based on *Bhatnagar*. Withdrawal of this rejection is respectfully requested for at least the following reasons.

The Examiner admits that *Bhatnagar* does not teach reporting fault information to the display unit 18 or other reporting device as recited in claims 14 and 15. However, the Examiner submits that it would have been obvious to send fault detection results to the display 18 in *Bhatnagar* for the purpose of apprising the user of the occurrence of a fault.

Serial No.: 10/754,152

Applicants respectfully submit that it would have been obvious to modify the display 18 in *Bhatnagar* to display fault information. *Bhatnagar* describes the multipoint digital temperature controller in the context of providing temperature control in a refrigerator. *Bhatnagar* teaches that the display 18 displays either the sensed temperature (i.e., the temperature within the refrigerator), or the user-selected reference temperature (i.e., the user desired temperature within the refrigerator). (See, e.g., Col. 9, Ins. 1-9).

Clearly the display 18 in *Bhatnagar* is intended for the consumer so as to know the temperature within the refrigerator and/or the set-point of the refrigerator temperature. It would not have been obvious in any way to modify the display to report the occurrence of a thermostat fault as in claim 14, or the particular thermostat fault as in claim 15. Such information would be meaningless to the consumer. Thus, one reading *Bhatnagar* would not have found it obvious to modify the display 18 to include fault information as recited in claims 14 and 15.

Consequently, withdrawal of the rejection of claims 14 and 15 is respectfully requested.

IV. INFORMATION DISCLOSURE STATEMENT

Submitted herewith is an Information Disclosure Statement citing applicant's own U.S. Patent No. 6,691,923.

V. CONCLUSION

Accordingly, all claims 1-2019 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Serial No.: 10/754,152

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

RENNER, OTTO, BOISSELLE & SKLAR, LLP



Mark D. Saralino
Reg. No. 34,243

DATE: October 25, 2005

The Keith Building
1621 Euclid Avenue
Nineteenth Floor
Cleveland, Ohio 44115
(216) 621-1113

B:\GENB\FGRIB\grp291b\grdsp291b.amd.wpd